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ABSTRACT

The purpose of this study was to evaluate the relative importance of school socioeconomic and racial-ethnic context for Mexican American student achievement and dropout behavior. Data reported in this paper were obtained from the first part of a larger 3-year panel study evaluating the effects of court-ordered busing on majority and minority student achievement. The sample consisted of 860 7th to 12th grade students in public schools in Waco, Texas, and a random sample of 380 dropouts from the Waco public schools during the 1970-71 school year. The specific variables identified were self-concept, racial/ethnic membership, family socioeconomic status, measured I.Q. score, parental authority structure, achievement value orientation, school racial/ethnic climate, school socioeconomic climate, school status-inschool/dropout, and composite achievement score. It was concluded that school racial-ethnic climate exercised the largest effect on variance in Mexican American achievement test scores. With all other factors controlled, Mexican American achievement scores were higher in desegregated school climates while Anglo achievement scores were higher in segregated facilities. The factor which exercised the second largest effect on Mexican American achievement was self-concept, followed closely by measured I.Q. It was further concluded that segregated school climates produced more Mexican American dropouts while desegregated school climates produced more Anglo dropouts. (HBC)

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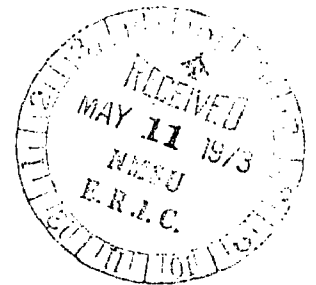
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MEXICAN-AMERICAN SELF-CONCEPT AND EDUCATIONAL ACHIEVEMENT:
THE EFFECTS OF ETHNIC ISOLATION AND SOCIO-ECONOMIC DEPRIVATION



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Low educational achievement and negative self-concept traditionally have been reported as characteristic of Mexican-American youth. Causes for these characteristics are usually located in the value structure of Mexican-American culture. Recently, however, strides have been made in moving away from this simplistic and misleading interpretation. Ethnic¹ and socio-economic² isolation in the schools are increasingly recognized for the devastating effects they exert on Mexican-Americans. While current studies often include these contextual factors, two limitations are commonly observed. The definition of achievement is usually limited to culture-bound standardized achievement tests which restrict the generalizability of findings. Those studies which do include additional measures of achievement such as holding power, fail to separate transfer students from dropouts and make little effort to analyze the actual determinants of dropout behavior. Secondly, many studies fail to specify the magnitude of effect of contextual factors, thereby restricting the interpretation of which factors are most important. The purpose of this study is to evaluate the relative importance of school socio-economic and

¹ See for example U.S. Commission on Civil Rights, Mexican-American Education Study Report I: Ethnic Isolation of Mexican-Americans in Public Schools of the Southwest (Washington, D.C.: U.S. Government Printing Office, 1971) and U.S. Commission on Civil Rights, The Unfinished Education: Outcomes for Minorities in the Five Southwestern States (Washington, D.C.: U.S. Government Printing Office, 1971)

² See Ralph H. Turner, The Social Context of Ambition, (San Francisco: Chandler Publishing Co., 1964) and James S. Coleman, et. al., Equality of Educational Opportunity (Washington, D.C.: U.S. Government Printing Office, 1966)

racial-ethnic context for Mexican-American student achievement and dropout behavior. Data are also included for Anglo and Negro students. Regression analysis is utilized to identify the crucial determinants of each type of educational achievement within each racial and ethnic group. In this way, racially and ethnically specific determinants of achievement may be compared. Information of this nature is seldom available due to the difficulty involved in locating and interviewing dropouts. Findings from this study present the necessary data for the development of realistic and balanced strategies in the struggle to provide an equal educational opportunity for Mexican-Americans.

THE CONCEPT OF ACHIEVEMENT

Much of the current interest in the use of achievement test scores to measure educational success stems from the Office of Education's Equality of Educational Opportunity Survey³ in which achievement tests were utilized to provide a nationwide comparison across racial, ethnic and regional categories. While standardized achievement tests do provide a basis from which to make comparisons, they are not without limitation. One limitation is that they are culture-bound and do not provide a true measure of minority student ability. Several studies have documented the limitations of non-Spanish language testing instruments for Mexican-Americans.⁴ Carter contends that

3 Coleman, et. al., Equality of Educational Opportunity, pp. 292-295

4 Uvaldo H. Palomares and Laverne C. Johnson, "Evaluation of Mexican-American Pupils for Educable Mentally Retarded Classes", California Education, (April, 1966) and John T. Chandler and John Plakos, "Spanish Speaking Pupils Classified as Educable Mentally Retarded" (Sacramento, Calif.: State Department of Education, 1969)

I.Q. and achievement tests do not provide any valid indicator of Mexican-American intellectual ability, since such tests only measure the degree of acculturation and enculturation of Mexican-Americans.⁵ Coleman agrees such tests are not culturally fair, suggesting that they primarily measure the degree to which a minority child has been assimilated into the dominant culture.⁶ While the phenomenon of cultural assimilation is important and needs to be researched, it is misleading to designate its effects as academic achievement. Dyer makes this point in his criticism of the Office of Education report, suggesting that the almost exclusive use of measures of verbal ability for achievement overestimates the importance of the social context of the school, while underestimating other factors.⁷ In other words, school practices and policies may have a much greater effect on alternative measures of achievement.

Not only may the results of standardized achievement tests be misinterpreted, the solitary use of such tests completely overlooks other types of achievement and educational success. Bowles considers the scores of verbal achievement and other standardized tests to be of only minor importance in the task of developing equality of educational opportunity.⁸ Equally as important are considerations of the effects of schools on student

5 Thomas P. Carter, Mexican Americans in School: A History of Neglect, (New York: College Entrance Examination Board, 1970), pp. 16-17

6 Coleman, et. al., Equality of Educational Opportunity, p. 218

7 Henry S. Dyer, "School Factors", Harvard Educational Review, 38 (Winter, 1968), pp. 38-57

8 Samuel S. Bowles, "Towards Equality?", Harvard Educational Review, 38 (Winter, 1968), pp. 89-100. See especially p. 98

attitudes, student self-concept, and of the ability of the school to motivate students to participate in school until the completion of their educational program. A number of studies indicate that regardless of race or ethnic background, there is a strong positive correlation between completion of educational program and subsequent occupational success and mobility.⁹ As Daniel Schreiber suggests, the problem of the school dropout is central to a whole complex of problems in contemporary society.¹⁰ The school's ability to motivate and equip its students to remain in school and not drop out may well be the most basic and important dimension to the current effort to equalize social, economic, racial and ethnic differences and liabilities of entering students. This paper investigates two measures of educational achievement: standardized achievement test scores, and the decision to remain in or drop out of school. If the educational system is the mobility generator par excellence, as recent court decisions concerning desegregation appear to suggest, then the decision to drop out of school represents as serious a barrier to future mobility as low achievement test scores.

9 See for example Otis Dudley Duncan and Robert Hodge, "Education and Occupational Mobility: a Regression Analysis," American Journal of Sociology, 68 (May, 1963), pp. 629-644; Peter M. Blau and Otis Dudley Duncan, The American Occupational Structure, (New York: John Wiley, 1967); and Robert M. Hauser, "Educational Stratification in the United States," Pp. 102-129 in Edward O. Laumann (Ed.), Social Stratification: Research and Theory for the 1970s (New York: Bobbs-Merrill Co., 1970)

10 Daniel Schreiber, Profile of the School Dropout, (New York: Random House, 1967)

SCHOOL CONTEXTUAL FACTORS

Major interest in the relation of school contextual factors to educational inequality was generated from the Office of Education's Survey.¹¹ In general, the major findings of the original analysis and a later re-analysis¹² point to the importance of the social context of the school, i.e., the socio-economic and racial-ethnic composition of the student body, for the explanation of differences in educational opportunity and achievement. Agreeing with the findings of several prior studies,¹³ the Office of Education report concludes that school socio-economic climate exerts a large, independent effect on student achievement and that this effect is asymmetric, with the greatest influence exercised on minority group children.¹⁴ School context is reported to exercise its largest effect on Mexican-American students, followed in order by Negro and Anglo students.¹⁵ Racial and ethnic isolation and separa-

11 Coleman, et. al., Equality of Educational Opportunity

12 U. S. Commission on Civil Rights, Racial Isolation in The Public Schools, 2 Volumes, (Washington, D.C.:U.S. Government Printing Office, 1967)

13 Samuel M. Goodman, The Assessment of School Quality, (Albany, N.Y.:New York State Department of Education, 1959); Alan B. Wilson, "Residential Segregation of Social Classes and Aspirations of High School Boys," American Sociological Review, 24 (December, 1959), pp. 836-845; John A. Michael, "High School Climates and Plans for Entering College," Public Opinion Quarterly, 25 (Winter, 1961), p p. 585-595; Turner, The Social Context of Ambition; and Richard P. Boyle, "The Effect of High School on Students' Aspirations," American Journal of Sociology, 71 (May, 1966), pp. 628-639

14 Coleman, et. al., Equality of Educational Opportunity, p. 304

15 Ibid., p. 306

tion are concluded as the major determinants of achievement, regardless of social class, in the re-analysis of the Office of Education data by McPartland and York.¹⁶ This conclusion agrees with previous studies¹⁷ and has been substantiated in more recent research.¹⁸ From data gathered in a survey of Los Angeles schools; Gordon indicates that school ethnic composition provides strong influence on Mexican-American student achievement, with higher levels of performance occurring in schools in which there are a high percentage of Anglo students.¹⁹ School ethnic composition is reported to exercise a larger effect at elementary and junior high levels. Increases in Mexican-American achievement as the proportion of Anglos increases is also reported in the Office of Education report.²⁰ Even where Mexican-American students are not isolated, beneficial inter-cultural contact with Anglo students may be with-

16 U. S. Commission on Civil Rights, Racial Isolation in the Public Schools

17 Irwin Katz, "Review of Evidence Relating to Effects of Desegregation on the Performance of Negroes," American Psychologist, XIX (1964), pp. 381-399

18 David Armor, School and Family Effects on Black and White Achievement: A Reexamination of the USOE Data (Cambridge: Harvard University Department of Social Relations, 1969); Paul Pritchard, "Effects of School Desegregation on Student Success in Chapel Hill Schools," Integrated Education, 7 (1969); and Nancy H. St. John and Ralph Lewis, "The Influence of School Racial Context on Academic Achievement," Social Problems, 19 (Summer, 1971), pp. 68-79

19 C. Wayne Gordon, et. al., Educational Achievement and Aspirations of Mexican-American Youth in a Metropolitan Context (Los Angeles, Calif: University of California, 1968), ERIC No ED 028 012

20 Coleman, et. al., Equality of Educational Opportunity, p. 307

held due to school policies of tracking and special curriculum assignments.²¹

The conceptual linkage between the contextual factors of school socio-economic and racial-ethnic composition and individual student achievement utilizes self-concept and motivational factors. Interactionist theory provides such a bridge in that the responses of others are held to be of crucial import for the shaping and modifying of student self-concept and behavior.²² Coleman suggests that the better educational backgrounds of students of middle to upper socio-economic climate schools increases the minority group child's sense of opportunity and control of his environment.²³ While Mexican-American students traditionally are reported to have negative self-concept, the Office of Education study does not report a large difference between 12th grade Anglo and Mexican-American self-concept.²⁴ Carter reports no difference between Mexican-American and Anglo high school freshmen with respect to a series of self-concept items and contends that many educators have employed negative self-concept to rationalize away the failure of the schools to educate Mexican-Americans.²⁵ While negative self-concept may contribute to low achievement, the regular assignment of Mexican-American students to lower socio-economic climate schools contributes significantly to reported negative self-concept.

21 Carter, Mexican Americans in School: A History of Neglect, pp. 81-82

22 Theodore Newcomb, Social Psychology (New York: Holt, Rinehart and Winston, 1950)

23 Coleman, et. al., Equality of Educational Opportunity, p. 324

24 Ibid., p. 287

25 Carter, Mexican Americans in School: A History of Neglect, pp. 56, 113

In a review of literature on the effects of school integration on academic performance, Katz concludes that racially and ethnically balanced schools contribute to academic performance since they provide new comparison levels for minority student self-concept development.²⁶ Pettigrew similarly suggests the opportunity for cross-racial and cross-cultural evaluation in desegregated schools leads to advances in achievement.²⁷ Such advances are conditional, however, upon situations in which majority student acceptance encourages cross-cultural comparisons. Both constructs of school socio-economic and racial-ethnic climate utilize student self-concept to link structural factors to individual achievement and behavior. While school contextual factors are considered in some studies of Mexican-American academic achievement, they are not considered in many. All too often, explanation is sought solely in family and personal factors such as negative self-concept. Those few studies which attempt to analyze Mexican-American student dropout behavior usually fail to consider any school contextual factors.

The two primary objectives in this study of the determinants of educational achievement of Mexican-American students, are:

1. To assess the relative contribution of individual (self-concept) and school contextual (socio-economic and racial-ethnic climate) factors to Mexican-American student achievement scores.

26 Katz, "Review of Evidence Relating to Effects of Desegregation on the Performance of Negroes,"; and Irwin Katz, "Achievement Motivation," Harvard Educational Review, 38 (Winter, 1968), pp. 57-68

27 Thomas F. Pettigrew, Racially Separate or Together? (New York:McGraw Hill, 1971)

2. To investigate the above relationship for an alternative measure of achievement, student dropout behavior.

RESEARCH PROCEDURES

The research reported in this paper is part of a larger three year panel study evaluating the effects of court ordered busing on majority and minority student achievement. Data reported in this paper are from the first wave, collected in the spring and summer of 1971. The sample for this wave consists of a stratified random sample of 860 7th to 12th grade students in public schools in Waco, Texas, and a random sample of 380 dropouts from Waco public schools during the 1970-1971 school year. Students in school were surveyed in spring and dropouts were interviewed during the summer by a specially trained multi-racial, multi-ethnic staff. Local chapters of organizations such as the NAACP and the Mexican-American Alliance participated in the development of interview schedules and data collection. In addition to measures for I.Q., achievement test scores, self-concept, achievement value orientation, parental authority structure and routine demographic information, aggregative measures were constructed for school socio-economic and racial-ethnic climates.²⁸

Multiple regression techniques are used since they allow the researcher to observe relations between variables with several factors simultaneously controlled. This is of special importance in a study which uses both individual

²⁸ Edward L. McDill, Edmund D. Myers and Leo C. Rigsby, "Institutional Effects on the Academic Behavior of High School Students," Sociology of Education, 40 (Summer, 1967), pp. 181-199

and contextual factors. The use of multiple regression minimizes potentially spurious effects in studies of this type.²⁹ Recent developments in the application of multiple regression analysis allows this technique to be extended to ordinal scale variables. Dummy variable techniques are used for dichotomous and other non-interval scale independent variables.³⁰ The use of ordinal dichotomies for dependent variables in regression analysis is documented by Lyons.

"As a dependent variable, ...each ordinal dummy represents the parent variable dichotomized at a particular category, ...unstandardized predictors from a given independent variable to a set of ordinal dependent dummies sum to the prediction of the parent variable. ...by far the most easily interpreted ordinal coefficients are unstandardized ones. 31

While the extension of such techniques to ordinal variables is relatively new, it presents a useful statistic for such analysis. Multiple regression

29 Arnold S. Tannenbaum and Jerald G. Bachman, "Structural Versus Individual Effects," American Journal of Sociology, LXIX (May, 1964), pp. 585-592

30 Daniel B. Suits, "Use of Dummy Variables in Regression Equations," Journal of The American Statistical Association, 52 (December, 1957), pp. 548-551; Richard P. Boyle, "Causal Theory and Statistical Measures of Effect: A Convergence," American Sociological Review, 31 (1966), pp. 843-851; and James S. Coleman, "Multivariate Analysis for Attribute Data," Pp. 217-246 in Edgar F. Borgatta and George W. Bohrstedt (Eds.), Sociological Methodology, 1970 (San Francisco: Jossey-Bass, 1970)

31 Morgan Lyons, "techniques For Using Ordinal Measures in Regression and Path Analysis," Pp. 147-171 in Herbert L. Costner (Ed.), Sociological Methodology, 1971 (San Francisco: Jossey-Bass, 1971)

provides a more powerful evaluation of complex relationships, is more appropriate for analysis and allows the relative effects of contextual and individual factors to be weighed with all other independent factors controlled.

Operational Definitions

Achievement

Achievement is measured in two ways.

1. Achievement scores are defined as composite scores on the California Achievement Test.
2. Dropout behavior is defined as leaving the school district without request or evidence of transfer.

School Context

School Climate is defined as the contextual or institutional effect of the school on the individual student's academic behavior.³² Two climates are used.

1. School socio-economic climate is composed of measures derived from the socio-economic status of parents of the students.
2. School racial-ethnic climate is defined in terms of the racial and ethnic composition of the school, with segregated climates defined as schools in which the student body and classes have 20% or more of one racial-ethnic group higher than expected from the municipal composition. Desegregated climates are defined

³² McDill, Meyer and Rigsby, "Institutional Effects on The Academic Behavior of High School Students", p. 182

as those schools in which the student body and classes have a racial-ethnic balance in proportion to municipal composition.

Self-Concept

Self-concept is defined as a set of beliefs and attitudes an individual has internalized concerning himself and his environment. This concept is operationalized by an index which combines self-concept and sense of control of environment measures used in the Office of Education Survey,³³ with measures of self-esteem and personal worth.³⁴

I.Q. Scores

Measured intelligence consists of total I.Q. scores from the California Test of Mental Maturity.

Achievement Value Orientation

Achievement value orientation is defined as a set of generalized attitudes toward mobility and achievement. They are measured by an index which combines the factors of education, mastery and time orientation.³⁵

33 Coleman, et. al., Equality of Educational Opportunity, pp. 281,288

34 Manuel Ramirez III, Identity Crisis in Mexican-American Adolescents (Sacramento, Calif:California State Department of Education, 1967); and B. J. Hodgkins and Robert G. Stakenas, "A Study of Self-Concepts of Negro and White Youth in Segregated Environments," Journal of Negro Education, 70 (1969), pp. 370-377

35 These three factors were isolated in a factor analysis reported by Richard A. Rehberg, Walter Schaeffer and Judie Sinclair, "Toward a Temporal Sequence of Adolescent Achievement Variables," American Sociological Review, 35 (1970), pp. 34-48; These factors were isolated from a series of value

Parental Authority Structure

Parental authority structure is defined as the type of authority exercised in parent and child relations. It is operationalized by an index of democratic to authoritarian.³⁶

FINDINGS

Means and rates for all variables, by racial-ethnic group membership, are presented in Table 1.

TABLE 1

Inspection of Table 1 reveals the existence of significant differences among

items developed in the work of Bernard C. Rosen, "The Achievement Syndrome: A Psycho-cultural Dimension of Social Stratification," American Sociological Review, 21 (1956), pp. 203-211; Fred L. Strodbeck, "Family Interaction, Values and Achievement," Pp. 135-194 in David C. McClelland, et. al., Talent and Society, (Princeton:D Van Nostrand, 1958); and Joseph Kahl, "Some Measures of Achievement Orientation," American Journal of Sociology, 70 (1965), pp. 669-679

36 See Glen H. Elder, Jr., "Structural Variations in the Child Rearing Process," Sociometry, 25 (1962), pp. 241-256; Glen H. Elder, Jr., "Parental Power Legitimation and Its Effects on the Adolescent," Sociometry, 26 (1963), pp. 50-65; and Charles Bowerman and Glen H. Elder, Jr., "Variations in Adolescent Perception of Family Power," American Sociological Review, (1964), pp. 551-567

racial and ethnic groups. As reported in the Office of Education report,³⁷ Mexican-American achievement test scores are above the Negro average, but below the average test score for Anglos. As reported in several studies,³⁸ dropout rates are disproportionately higher for racial and ethnic minority groups. While Anglos account for the largest percentage of dropouts, their rate .2% is the lowest. The Mexican American rate is twice as high as the Negro rate and three times as high as the Anglo rate. The conjecture that the ability of a school to retain its students be considered as part of the definition of inequality of educational opportunity, appears quite tenable. Table 2 presents the zero-order correlation matrix for all variables.

TABLE 2

Results of multiple regression analysis for the dependent variable of achievement test scores, (X_{10}) as well as separate regressions for each racial-ethnic group are presented in Table 3.

TABLE 3

As coefficients in the column headed "total" indicate, school socio-economic climate exercises the largest independent effect for the explanation of

37 Coleman, et. al., Equality of Educational Opportunity,

38 National Education Association, Dropout Studies: Design and Conduct (Washington, D.C.:National Education Association, 1965) and Robert A. Dentler and Mary E. Warshauer, Big City Dropouts And Illiterates, (New York:Frederick A. Praeger, 1967)

variance in composite achievement test scores for the total sample. Measured I.Q. exercises the second largest effect followed by self-concept and family socio-economic status. The negative sign before the coefficient for racial-ethnic group membership (-.215) indicates Anglos have higher achievement test scores. Separate regressions for racial-ethnic categories reveal the strength of factors varies for different racial and ethnic groups. While part of this difference is due to differing magnitudes of R^2 , the relative order of factors within racial and ethnic groups is of primary importance for this study.

School racial-ethnic climate exercises the largest effect on variance in Mexican-American achievement test scores. The coefficient of -.497 indicates that Mexican-American achievement scores are higher, with all other factors controlled, in desegregated school climates. For Anglos, this relationship is reversed; i.e., Anglo achievement scores are higher in segregated facilities. Findings reported here parallel those reported in the Office of Education Survey which indicate Mexican-American students are more sensitive to school effects than Anglos.³⁹ The factor which exercises the second largest effect on Mexican-American achievement is self-concept (.376) followed closely by measured I.Q. (.374). Compared with coefficients for Anglo and Negro student self-concept, this factor exercises a disproportionately large effect for Mexican-Americans.

School socio-economic climate is also observed to contribute to Mexican-American achievement, although not as strongly as for Anglos. School socio-economic climate exercises a consistent effect for all racial-ethnic groups;

39 Coleman, et. al., Equality of Educational Opportunity, p. 297

with higher socio-economic climates promoting higher achievement levels. Family socio-economic status exercises almost no effect for Mexican-Americans. TenHouten, Lei, Kendall and Gordon⁴⁰ report a similar finding for the dependent variable of college plans. With the exception of I.Q., coefficients for personal factors are smaller in magnitude for Mexican-Americans than for the total sample. Over one-half of the explained variance in Mexican-American achievement test scores is accounted for by school contextual factors, with school racial-ethnic climate exercising the largest effect.

Table 4 presents the results of multiple regression analysis for the dependent variable of dropout behavior, as well as the results of separate regressions for each racial-ethnic group. Coefficients are unstandardized regression coefficients which have been summed to show the total effect of the parent variables.

TABLE 4

For the total sample, the factors of family socio-economic status and racial-ethnic group membership contribute most to the explanation of variance in dropout behavior. School contextual factors exercise a relatively weak effect. Tentative support is provided for those studies which report background factors dominate in the explanation of dropout behavior. In the separate

40 W. D. TenHouten, Tzuen-jen Lei, Francoise Kendall and C. Wayne Gordon, "School Ethnic Composition, Social Contexts, and Educational Plans of Mexican-American and Anglo High School Students," American Journal of Sociology, 77 (1971), pp. 89-108

regressions, however, significant differences in factor strength are observed among racial and ethnic groups. For Mexican-American students, school racial-ethnic climate has the largest effect on dropout behavior. The positive value of .416 indicates that segregated school climates produce more dropouts, whereas desegregated climates produce fewer Mexican-American dropouts. It is important to note this situation is reversed for Anglo students; i.e., desegregated school climates produce more Anglo dropouts. It should also be underscored that this relationship is observed with the effects of family socio-economic status and school socio-economic climate controlled.

Hypothesizing that school contextual variables interact with personal, family and background variables to form and sustain student self-concept, a regression was run with self-concept as the dependent variable.

TABLE 5

Even though differing magnitudes of R^2 do not allow for precise comparisons, school contextual factors appear to exercise a more decisive effect for Mexican-American and Anglo student self-concept. Higher coefficient values do not establish causality, however. Such values may only reflect other social and economic forces which regularly influence individual development and school assignment. While the racial-ethnic climate of the school may be helpfully predictive for locating students with negative self-concept, the effects of self-concept are different for Mexican-American students than for Anglo students. For Mexican-Americans, self-concept is a strong determinant of both achievement test scores and dropout behavior; for Anglos, it only weakly affects either.

DISCUSSION AND CONCLUSIONS

For the total sample of students, individual and school contextual factors are observed to vary in relative strength for the alternate measures of educational achievement. Whereas school socio-economic climate is the largest determinant of achievement test level, it only weakly affects dropout behavior. Racial-ethnic composition of the school does not appear to exercise a strong effect on either measure of educational achievement. Among the various racial and ethnic groups, however, the effects of variables is quite different. For Mexican-Americans two factors consistently exercise the largest influence for either measure of educational achievement; self-concept and the racial-ethnic compositional climate of the school. Positive self-concept encourages high achievement test scores; negative self-concept, dropping out. Racially and ethnically segregated school climates raise barriers to the academic achievement of Mexican-Americans, while promoting dropout behavior.

The relationship between school racial-ethnic climate and self-concept suggests that the consistent assignment of Mexican-American students to segregated, lower socio-economic climate schools contributes substantially to the development and confirmation of negative self-concept. Such assignment policies not only thwart the school's potential for providing equal educational opportunity, they guarantee the school's complicity in withholding such opportunity. The combination of effects of assignment to segregated, lower socio-economic climate schools and negative self-concept are seen in lower levels of academic achievement and higher dropout rates.

The importance of analyzing the determinants of educational achievement separately for each racial and ethnic group is observed with the

interaction between school contextual factors and racial-ethnic group membership. Where segregated school climates promote low achievement levels among Mexican-Americans and Negroes, they promote high achievement levels among Anglos. Desegregated school climates promote lower dropout rates among minority group students, but appear to increase the rate among majority students. Contrary to the findings of Gordon⁴¹ and the implications of the Civil Rights Commission Report⁴², the performance of Anglo pupils is affected by the school context. School socio-economic climate exercises a strong effect on Anglo student achievement level and dropout behavior. The racial-ethnic composition of the school also affects Anglo dropout behavior.

If the gain in Mexican-American educational achievement made possible through school desegregation produces a loss in Anglo educational achievement, procedures to desegregate schools to achieve equality of educational opportunity will be strongly resisted in certain quarters. While seldom discussed, differences such as these may represent a major reason that inequality of educational opportunity is proving so difficult to change. While sample and design limitations of this study restrict such generalization, the necessity for continued study and replication in this area is obvious. Part of the explanation as to why findings in this study deviate from those of larger surveys may rest with what Grebler, Moore and Guzman identify as the community social context.⁴³ The degree of social isolation and

41 Gordon, et. al., "Educational Achievement and Aspirations of Mexican-American Youth in a Metropolitan Context"

42 U. S. Commission on Civil Rights, Racial Isolation in the Public Schools

43 Leo Grebler, Joan W. Moore and Ralph C. Guzman, The Mexican-American People: The Nation's Second Largest Minority (New York: The Free Press, 1970),

economic poverty of the Mexican-American community in Waco, Texas may be greater than in a modern urban setting such as Los Angeles. While such significant community differences tend to average out in the larger surveys, they may provide the explanation why educational reform measures are successful in some areas and not in others.

With respect to the development of strategies to provide an equal educational opportunity for Mexican-Americans, it is important to note that many such programs and policies have been generated from a cluster of factors based on the combined experience of different racial and ethnic minority group students. This "average student approach" reduces the significant differences between racial and ethnic groups to a composite statistical common denominator. As is evident from the regression analyses in this study, programs designed to improve minority group achievement and reduce dropout rates need to follow different techniques and strategies, depending on the particular racial-ethnic minority. In addition, some sort of policy of balance needs to be achieved. It is evident from this study that the educational achievement of Mexican-Americans would be positively benefitted by the desegregation of schools and the mixing of students from differing socio-economic backgrounds. The best technique for the accomplishment of this goal, however, may vary from community to community. Strategies to provide equal educational opportunity need to be designed with specific reference to the particular community context in which they are to be employed.

TABLE 1

VARIABLES: MEANS AND PERCENTAGES BY RACIAL/ETHNIC GROUP MEMBERSHIP

Variable Name	Total	Mexican-American	Negro	Anglo
X ₁ Self-concept	2.74	2.12	3.24	2.67
X ₂ Racial-Ethnic Membership	100%	10%	21%	69%
X ₃ Family Socio-economic Status	29.4	11.4	23.0	38.1
X ₄ Measured I. Q. Score	98.3	84.7	85.0	104.9
X ₅ Parental Authority Structure	2.8	3.2	2.7	2.8
X ₆ Achievement Value Orientation	3.4	3.3	2.8	3.6
X ₇ School Racial-Ethnic Climate	2.2	1.4	2.0	2.7
X ₈ School Socio-economic Climate	17.1	8.1	12.8	22.8
X ₉ School Status- Inschool/Dropout	5.4%	12.6%	6.4%	4.2%
X ₁₀ Composite Achievement Score	49.0	30.5	28.1	58.5

- X₁ Measured by a scale of 1 = negative to 5 = positive.
X₂ Percent of 7th to 12th grade racial-ethnic distribution.
X₃ Measured by a scale of 1=low to 50=high
X₄ Total I. Q. score from the CTMM
X₅ Measured by a scale of 1=authoritarian to 5=democratic
X₆ Measured by a scale of 1=low values to 5=high values
X₇ Measured by a scale of 1=desegregated according to community racial/ethnic proportions, 2=partially segregated, 3= Segregated
X₈ Measured by a scale of 1=low SES to 30=high SES
X₉ Dropout Rate calculated on 9th - 12th graders only
X₁₀ Standardized scores for total verbal ability, California Achievement Test..

TABLE 2

INTERCORRELATION OF VARIABLES

	X ₁	X ₂	X ₃	X ₄	X ₅	X ₆	X ₇	X ₈	X ₉	X ₁₀
X ₁	1.000									
X ₂	.152	1.000								
X ₃	.086	-.416	1.000							
X ₄	.189	-.423	.441	1.000						
X ₅	.178	.031	.155	.135	1.000					
X ₆	.325	-.082	.174	.371	.235	1.000				
X ₇	.024	-.299	.473	.454	.031	.149	1.000			
X ₈	-.046	-.409	.519	.526	.024	.201	.742	1.000		
X ₉	-.326	.195	-.244	-.399	-.163	-.229	-.268	-.232	1.000	
X ₁₀	.194	-.361	.433	.731	.115	.376	.406	.514	-.397	1.000

-
- X₁ Self-concept
 - X₂ Racial/Ethnic Group Membership
 - X₃ Family Socio-economic Status
 - X₄ Measured I. Q. Score
 - X₅ Parental Authority Structure
 - X₆ Achievement Value Orientation
 - X₇ School Racial-Ethnic Climate
 - X₈ School Socio-economic Climate
 - X₉ School Status - Inschool/Dropout
 - X₁₀ Standardized Achievement Score

TABLE 3

REGRESSION ANALYSIS FOR THE DEPENDENT VARIABLE OF ACHIEVEMENT SCORES BY RACIAL/ETHNIC GROUP MEMBERSHIP

Independent Factors	Total				Mexican-American		Negro		Anglo	
	Total				Mexican-American		Negro		Anglo	
X ₁ Self-concept	.253		.376	.052	.165					
X ₂ Racial/Ethnic Membership	-.215		-	-	-					
X ₃ Family Socio-economic Status	.243		.064	.337	.182					
X ₄ Measured I. Q.	.354		.374	.219	.324					
X ₅ Parental Authority Structure	.168		.093	.212	.117					
X ₆ Achievement Value Orientation	.215		.116	.174	.293					
X ₇ School Racial/Ethnic Climate	.134		-.497	-.247	.151					
X ₈ School Socio-economic Climate	.369		.287	.224	.403					
R ²	.472		.625	.327	.437					
Significance level - F Test	.01		.001	.01	.01					

TABLE 4

REGRESSION ANALYSIS FOR THE DEPENDENT VARIABLE OF SCHOOL STATUS BY RACIAL/ETHNIC GROUP MEMBERSHIP

Independent Factors	Total				Mexican-American				Negro				Anglo			
	Total				Mexican-American				Negro				Anglo			
X ₁ Self-concept				-.206				-.357				-.152				1.175
X ₂ Racial/Ethnic Membership				.357			-	-				-				-
X ₃ Family Socio-economic Status				-.382			-.196	-.196				-.297				-.394
X ₄ Measured I. Q.				-.231			-.192	-.192				-.247				-.256
X ₅ Parental Authority Structure				-.173			-.285	-.285				-.141				-.139
X ₆ Achievement Value Orientation				-.142			-.339	-.339				-.473				-.074
X ₇ School Racial/Ethnic Climate				-.124			.416	.416				.147				-.219
X ₈ School Socio-economic Climate				-.197			-.153	-.153				-.238				-.367
R ²				.482			.574	.574				.541				.442
Significance level - F Test				.01			.001	.001				.001				.01

TABLE 5

REGRESSION ANALYSIS FOR THE DEPENDENT VARIABLE OF SELF-CONCEPT BY RACIAL/ETHNIC GROUP MEMBERSHIP

Independent Factors	Mexican-American		Negro		Anglo	
Family Socio-Economic Status	.148		.121		.072	
Measured I.Q.	.147		.105		.205	
Parental Authority Structure	.196		.209		.053	
Achievement Value Orientation	.317		.431		.267	
Parental Educational Encouragement	.148		.161		.108	
School Racial/Ethnic Climate	-.332		-.092		.131	
School Socio-Economic Climate	.373		.186		.284	
R^2	.485		.334		.236	